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CLAIMS

1. A method of routing a message, conveyed in stream through a point-to-point
connection to a load-balancing element, to one of a plurality of available processing
systems each connected to the load-balancing element by separate point-to-point
connections, comprising at the load-balancing element:

extracting the message from the stream;

detecting in the extracted message the presence of an identifier identifying
one of the available processing systems;

and where the presence of the identifier is detected, forwarding the message
to the processing system identified thereby via the appropriate connection;

otherwise determining a destination processing system for processing the
message;

inserting into the message an identifier identifying the determined destination
processing system; and

forwarding the message to the processing system via the appropriate
connection.

2. A method according to claim 1, wherein each message further includes a message
identifier for identifying related messages, the method further comprising maintaining
a database of message identifiers for which no destination identifiers was detected
along with information indicating to which of the available processing systems each
message was forwarded to.

3. A method according to claim 2, further comprising, where a message is received
without a destination identifier, searching the database for a related message
identifier and, where found, forwarding the message to the processing system
identified therein.

4. A method according to any previous claim, further comprising removing entries in
the database after a predetermined amount of time.

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5. A method according to any previous claim, wherein the point-to-point connection is a transport control protocol (TCP) connection, and wherein the message is a session initiation protocol (SIP) message.

5   6. A method according to any previous claim, wherein the step of inserting further comprises inserting the destination identifier into an extension header of a SIP message.

7. A load-balancing element for routing a message conveyed in a stream through a
10   point-to-point connection to one of a plurality of available processing systems each connected to the load-balancing element by separate point-to-point connections, comprising at the load-balancing element:

        a message processor for extracting the message from the stream;

        a message analyzer for detecting in the received message the presence of an
15   identifier identifying one of the available processing systems; and

        a message forwarder for forwarding the message to the processing system identified thereby via the appropriate connection.

8. A load-balancing element according to claim 7, further comprising, for when the
20   presence of a destination identifier is not detected,

        a load analyzer for determining a destination processing system for processing the message; and

        a message processor for inserting into the message a destination identifier identifying the determined destination processing system.

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9. A load-balancing element according to claim 7 or 8, wherein each message further includes a message identifier for identifying related messages, and further comprising a database for storing details of message identifiers for which no destination identifier was detected along with information indicating to which of the
30   available processing systems each message was forwarded to.

10. A load-balancing element according to claim 7, 8 or 9, further comprising, where a message is received without a destination identifier, means for searching the

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database for a related message identifier and for identifying to which processing system the message should be forwarded.

11. A load-balancing element according to any of claims 7 to 10, adapted for use where each point-to-point connection is a transport control protocol (TCP) connection, and wherein the message is a session initiation protocol (SIP) message.

12. A load-balancing element according to any of claims 7 to 11, wherein the message processor is adapted for inserting the destination identifier into an extension header of a SIP message.

13. A session initiation protocol (SIP) network comprising elements according to any of claims 7 to 12.

14. A session initiation protocol (SIP) network operating in accordance with the method of any of claims 1 to 6.